

Remarks

Claims 1-3, 5-6, 8-17, 19-29, 31-35, 53, 55, and 57-76 are pending in the application. Claims 36-52 have been withdrawn from consideration. Claims 4, 7, 18, 30, 54, and 56 have been canceled. Claims 1-3, 8, 13-15, 19, 24, 26-29, 31, 53, 55, and 57 have been amended. New claims 58-76 have been added. No new matter has been added by virtue of this amendment. Reconsideration of the application as amended is requested.

Restriction

Applicant affirms election of claims 1-35, 53-57 and cancels claims 36-52.

Title

The title has been corrected as requested by the Examiner.

Disclosure

The specification has been corrected to remove the erroneous reference to a non-existent figure with a photograph. The double use of the word "to" has been fixed.

Drawings

The specification has been corrected to change the numbers to conform the specification to the drawings. Minor corrections have been made to FIGS. 1 and 6.

Claim Objection

\ Claim 30 has been canceled eliminating the problem identified by the Examiner.

Claim Rejections--35 U.S.C. § 102(b)

The Examiner rejects claim 1-35, 53-57 under 35 U.S.C. § 102(b), as being anticipated by Arms et al (5,914,593). The Examiner states that "Arms discloses an electronic device comprising a coil, a magnetically permeable member that extends in the coil and a circuit wherein the circuit adjusts output voltage of the coil to compensate for a change in temperature in the coil. The change in temperature of the sensor is incorporated

in the output of the sensor (note whole document).”

However, applicant would respectfully ask the Examiner to consider that Arms exclusively teaches using a dual coil. There is not teaching or suggestion to use a single coil inductive transducer, or a single inductor, or a single component, as provided in claims 1, 13, 24, and 53. Arms teaches the advantages of the **differential** transducer, advantages that are given up by going to a single coil, single inductor, or single component device. There is no teaching or suggestion to give up the advantage provided by the differential transducer. As Arms notes,

The effect of temperature on inductive transducers limits their overall absolute accuracy. Inductive transducers are often designed so the measurement is made using a **differential pair of coils**. In this manner, the effect of temperature can theoretically be canceled, since the output signal is the difference between the output of two coils, and temperature changes that both coils experience equally is theoretically subtracted out. However, if one coil experiences a different temperature environment than the other coil, a signal proportional to the temperature gradient between the two coils will appear at the circuit output, significantly reducing absolute accuracy.

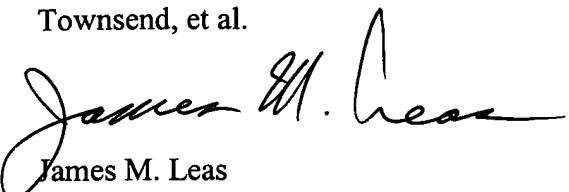
The central point of the Arms patent is to overcome the problem of temperature gradients while retaining the advantage of the differential measurement made possible by providing a **pair of coils** in the sensor.

Thus, the rejection of the claims under 35 U.S.C. § 102(b), as being anticipated by Arms et al has been traversed.

Conclusion

It is believed that all the claims remaining in the application are in condition for allowance. Therefore, applicant respectfully requests favorable reconsideration. If there are any questions please call applicant's attorney at 802 864-1575.

Respectfully submitted,
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